

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

OIP TECHNOLOGIES, INC.,

No. C-12-1233 EMC

Plaintiff,

v.

**ORDER GRANTING DEFENDANT'S
MOTION TO DISMISS**

AMAZON.COM, INC.,

(Docket No. 33)

Defendant.

I. INTRODUCTION

Pending before the Court is Defendant Amazon's motion to dismiss for failure to state a claim under Rule 12(b)(6) of the Federal Rules of Civil Procedure. Docket No. 33. Defendant argues that Plaintiff OIP's patent is facially invalid under 35 U.S.C. § 101 because it covers non-patent-eligible subject matter. Having considered the parties' submissions and oral argument, and for the reasons set forth below, the Court **GRANTS** Defendant's motion to dismiss under § 101.

II. FACTUAL & PROCEDURAL BACKGROUND

In the Complaint, Docket No. 1, Plaintiff alleges as follows. Plaintiff OIP is the successor to Optivo Corporation. Compl. ¶ 19. Defendant Amazon is the world's leading online retailer with its headquarters in Seattle, Washington. OIP owns the patent at issue in this case – U.S. Patent No. 7,970,713 ("the '713 patent") – entitled "Method and Apparatus for Automatic Pricing in Electronic Commerce." Compl., Ex. 1. OIP's invention was designed to facilitate e-commerce price selection and optimization. *Id.* ¶ 9. Marketed as the Optivo Pricing Solution, the invention allowed for "automated testing and selection of prices for goods and services sold online." *Id.* ¶ 10. Optivo

1 released the product in 2001 and allowed e-commerce companies to participate in trials of the
2 technology. *Id.* ¶ 11.

3 Amazon's consumer electronics unit participated in a trial demonstration in June 2001,
4 increasing its contribution margin by 7% of revenue. *Id.* ¶¶ 13-14. The parties exchanged
5 information under a Non-Disclosure Agreement during that time. *Id.* ¶ 13. The parties met on
6 September 18, 2001, to discuss Amazon's potential acquisition of Optivo and its technology. *Id.* ¶
7 16. At that meeting, Optivo presented a detailed presentation regarding the patent-pending
8 technology, and projected that using the Optivo technology could increase margins by \$100 million.
9 *Id.* ¶ 17. Amazon declined to purchase Optivo, but offered employment to two Optivo engineers for
10 the job title of "Price Statisticians." *Id.* ¶ 18. Both engineers fielded technical questions about the
11 Optivo technology during the interview. *Id.*

12 Approximately ten years later, on June 28, 2011, the '713 patent issued. *Id.* ¶ 19. The
13 abstract to the '713 patent states:

14 An automatic pricing method and apparatus for use in electronic
15 commerce environments is described. Automatic pricing uses live
16 price testing to estimate and measure demand for specific
17 products--taking into account where appropriate, a vendor selected
18 segmentation scheme. The results of live price testing are compared
19 using a vendor selected goal function, e.g. profit maximization, to
20 select a new price. A goal function that balances short term gains
21 versus long term gains based on customer lifetime value is described.
22 The live price testing approach used is designed to minimize losses
23 due to price testing through statistical methods. Additionally, methods
24 for distributing price testing across time so as to avoid problems
25 caused by too many ongoing tests as well as side effects from testing
26 are described. The selected price is a win for both purchasers and
27 vendors as the automatic price will approximate the efficiency of a
28 reverse auction without the inconvenience of the auction format while
being goal maximizing for the vendor. For example, a vendor that
normally sets prices of items for sale to customers can use
embodiments of the invention to great effect.

24 Compl. Ex. 1, at 1. The '713 patent contains two independent claims, which the Court reproduces
25 below. Claim 1, the independent method claim, states:

26 A method of pricing a product for sale, the method comprising:

27 [1] testing each price of a plurality of prices by sending a first set of
28 electronic messages over a network to devices;

[a] wherein said electronic messages include offers of said product;

[b] wherein said offers are to be presented to potential customers of said product to allow said potential customers to purchase said product for the prices included in said offers;

[c] wherein the devices are programmed to communicate offer terms, including the prices contained in the messages received by the devices;

[d] wherein the devices are programmed to receive offers for the product based on the offer terms;

[e] wherein the devices are not configured to fulfill orders by providing the product;

[f] wherein each price of said plurality of prices is used in the offer associated with at least one electronic message in said first set of electronic messages;

[2] gathering, within a machine-readable medium, statistics generated during said testing about how the potential customers responded to the offers, wherein the statistics include number of sales of the product made at each of the plurality of prices;

[3] using a computerized system to read said statistics from said machine-readable medium and to automatically determine, based on said statistics, an estimated outcome of using each of the plurality of prices for the product;

[4] selecting a price at which to sell said product based on the estimated outcome determined by said computerized system; and

[5] sending a second set of electronic messages over the network, wherein the second set of electronic messages include offers, to be presented to potential customers, of said product at said selected price.

Compl. Ex. 1. Claim 27, the independent medium claim, describes:

A computer-readable medium carrying instructions which, when executed by one or more processors, cause the one or more processors to price a product for sale by performing the steps of:

[1] testing each price of a plurality of prices by sending a first set of electronic messages over a network to devices;

[a] wherein said electronic messages include offers of said product;

[b] wherein said offers are to be presented to potential customers of said product to allow said potential

customers to purchase said product for the prices included in said offers;

[c] wherein the devices are programmed to communicate offer terms, including the prices contained in the messages received by the devices;

[d] wherein the devices are programmed to receive orders for the product based on the offer terms;

[e] wherein the devices are not configured to fulfill orders by providing the product;

[f] wherein each price of said plurality of prices is used in the offer associated with at least one electronic message in said first set of electronic messages;

[2] gathering, within a machine-readable medium, statistics generated during said testing about how the potential customers responded to the offers, wherein the statistics include number of sales of the product made at each of the plurality of prices;

[3] using a computerized system to read said statistics from said machine-readable medium and to automatically determine, based on said statistics, an estimated outcome of using each of the plurality of prices for the product;

[4] selecting a price at which to sell said product based on the estimated outcome determined by said computerized system; and

[5] sending a second set of electronic messages over the network, wherein the second set of electronic messages include offers, to be presented to potential customers, of said product at said selected price.

Id.

Thus, the two independent claims are identical but that Claim 27 provides for a “computer-readable medium” capable of performing the method of Claim 1. The remaining claims are dependent claims, based off of Claims 1 or 27.

On March 12, 2012, OIP filed this suit alleging that Amazon infringes the ‘713 patent by, *e.g.*, “making and using software systems for automated testing and selection of prices for products and services offered for sale on www.amazon.com wherein statistics are generated during the testing, estimated outcomes are determined, and prices are selected for a subsequent offer for sale of a product or service based on the estimated outcomes.” *Id.* ¶ 24. OIP further alleges that Amazon’s infringement of the ‘713 patent “has been and continues to be willful.” *Id.* ¶ 26. Plaintiff alleges that

Amazon has had notice that the patent was pending since at least 2001, because Plaintiff directly so informed it. *Id.* ¶ 20.

III. DISCUSSION

A. Legal Standard

Under Federal Rule of Civil Procedure 12(b)(6), a party may move to dismiss based on the failure to state a claim upon which relief may be granted. *See* Fed. R. Civ. P. 12(b)(6). A motion to dismiss based on Rule 12(b)(6) challenges the legal sufficiency of the claims alleged. *See Parks Sch. of Bus. v. Symington*, 51 F.3d 1480, 1484 (9th Cir. 1995). In considering such a motion, a court must take all allegations of material fact as true and construe them in the light most favorable to the nonmoving party, although “conclusory allegations of law and unwarranted inferences are insufficient to avoid a Rule 12(b)(6) dismissal.” *Cousins v. Lockyer*, 568 F.3d 1063, 1067 (9th Cir. 2009). While “a complaint need not contain detailed factual allegations . . . it must plead ‘enough facts to state a claim to relief that is plausible on its face.’” *Id.* “A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009); *see also Bell Atl. Corp v. Twombly*, 550 U.S. 544, 556 (2007). “The plausibility standard is not akin to a ‘probability requirement,’ but it asks for more than sheer possibility that a defendant acted unlawfully.” *Iqbal*, 556 U.S. at 678 (quoting *Twombly*, 550 U.S. at 556).

B. Patent Eligibility Under 35 U.S.C. § 101

Section 101 of the Patent Act provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. “In choosing such expansive terms modified by the comprehensive ‘any,’ Congress plainly contemplated that the patent laws would be given wide scope.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010).

Notwithstanding the broad scope of § 101, however, there are three judicially-created exceptions to § 101 patent-eligibility: “laws of nature, physical phenomena, and abstract ideas.” *Bilski*, 130 S. Ct. at 3225; *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289,

1 1301 (2012). These principles are not patent-eligible because ““they are the basic tools of scientific
2 and technological work,”” which are ““free to all men and reserved exclusively to none.”” *Mayo*,
3 132 S. Ct. at 1293 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972), and *Diamond v.*
4 *Chakrabarty*, 447 U.S. 303, 309 (1980)).

5 In deciding whether a patent falls into one of these exceptions, courts have often used the
6 “machine-or-transformation” test, under which “[a] claimed process is surely patent-eligible under §
7 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a
8 different state or thing.” *Bilski*, 130 S. Ct. at 3224 (citations omitted). The Supreme Court has
9 recently confirmed that this test is not dispositive, though it is still an “important and useful clue.”
10 *Id.* at 3226; *see also id.* at 3227 (“[T]he machine-or-transformation test is a useful and important
11 clue, an investigative tool, for determining whether some claimed inventions are processes under §
12 101.”).

13 Beyond the machine-or-transformation test, a court is obligated to hew closely to established
14 precedents in this area to determine whether an invention falls within one of the exceptions to §
15 101’s broad eligibility. *See id.* at 3231 (“Rather than adopting categorical rules that might have
16 wide-ranging and unforeseen impacts, the Court resolves this case narrowly on the basis of this
17 Court’s [prior] decisions.”). Whether a claim recites patent-eligible subject matter is a question of
18 law. *See Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012); *CyberSource Corp. v.*
19 *Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011).

20 The Federal Circuit has cautioned “that the ‘disqualifying characteristic’ of abstractness must
21 exhibit itself ‘manifestly’ ‘to override the broad statutory categories of patent eligible subject
22 matter.’” *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1349 (Fed. Cir. 2012) (quoting
23 *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 868 (Fed. Cir. 2010)) (“[S]ection 101 does
24 not permit a court to reject subject matter categorically because it finds that a claim is not worthy of
25 a patent.”)). Thus, § 101 is merely “a ‘coarse eligibility filter,’ not the final arbiter of patentability.”
26 *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1066 (Fed. Cir. 2011) (quoting
27 *Research Corp.*, 627 F.3d at 869). Notwithstanding this forgiving standard, however, the Federal
28 Circuit has acknowledged that “[t]he patent system represents a carefully crafted bargain that

encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.” *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, --- F.3d ---, No. 2011-1219, 2012 WL 3181659, at *17 (Fed. Cir. Aug. 7, 2012) (quoting *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998)). “A patentee does not uphold his end of this ‘bargain’ if he seeks broad monopoly rights over a basic concept, fundamental principle, or natural law without a concomitant contribution to the existing body of scientific and technological knowledge.” *Id.*

In the instant case, Defendant argues that the ‘713 patent’s claims fail to meet the coarse eligibility filter of § 101 because they fail the machine-or-transformation test and because they are directed to the abstract idea of price optimization, which is a fundamental economic principle that is reserved for the public.¹ For the reasons set forth below, the Court agrees.

1. Procedural Posture

As a preliminary matter, Plaintiff argues that it is premature to consider Defendant’s eligibility challenges to the patent because the Court has yet to construe any of the claim elements, so the meaning of terms like “testing,” “computer system,” and “automatically” may have bearing on the subject matter eligibility analysis. Thus, Plaintiff argues it is too early to examine patent eligibility because claims construction and evidence may shed light on the distinction between an attempt to patent an abstract idea and an attempt to patent a practical application of that idea in a permissible manner under § 101. However, Plaintiff fails to explain how claims construction would materially impact the § 101 analysis in the instant case; instead, it merely asserts in conclusory

¹ The Court may examine the claims of the ‘713 patent together despite the fact that one independent claim is a method claim and the other describes a computer-readable medium claim. The Federal Circuit has confirmed that “a machine, system, medium, or the like may in some cases be equivalent to an abstract mental process for purposes of patent ineligibility.” *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 2012 WL 3037176, at *9 (Fed. Cir. July 26, 2012) (citations omitted). This case presents such an example because the medium claim “recites a computer readable medi[um] for controlling a computer to perform the same . . . steps of method claim [1], repeated word for word.” *Id.* (internal quotation marks omitted). Therefore, “[t]here is no material difference between these two categories of claims in the asserted patents,” and the Court need not distinguish between the method and medium claims in its analysis because they are “equivalent for purposes of patent eligibility under § 101.” *Id.* See also *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada*, 771 F. Supp. 2d 1054, 1065 (E.D. Mo. 2011), *aff’d*, 687 F.3d 1266 (Fed. Cir. 2012) (“[M]erely reciting data or instructions on a stored machine readable medium does not make a claim statutory under § 101.”).

1 fashion that construction “will undoubtedly impact the scope of the claims and could have bearing
2 on the subject matter eligibility analysis.” Opp. at 22.

3 In addition, Amazon points out that courts have considered § 101 eligibility at the motion to
4 dismiss stage, and that therefore its motion is not *per se* premature. See, e.g., *Glory Licensing LLC*
5 *v. Toys “R” Us, Inc.*, No. 09-4252, 2011 WL 1870591, at *4 (D.N.J. May 16, 2011) (finding patent
6 ineligible under § 101 on a 12(b)(6) motion); *Ultramercial, LLC v. Hulu, LLC*, No. 09-6918, 2010
7 WL 3360098, at *7 (C.D. Cal. Aug. 13, 2010) (same). Indeed, while the Federal Circuit reversed
8 *Ultramercial* on the merits of the § 101 analysis, it confirmed that it “has never set forth a bright line
9 rule requiring district courts to construe claims before determining subject matter eligibility,” and
10 that “in [that] case, the subject matter at stake and its eligibility [did] not require claim
11 construction.” *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323, 1325 (Fed. Cir. 2011) *cert. granted*,
12 *judgment vacated sub nom. WildTangent, Inc. v. Ultramercial, LLC*, 132 S. Ct. 2431 (2012); see
13 also *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 2012 WL
14 3037176, at *5 (Fed. Cir. July 26, 2012) (“Although *Ultramercial* has since been vacated by the
15 Supreme Court, we perceive no flaw in the notion that claim construction is not an inviolable
16 prerequisite to a validity determination under § 101.”).

17 Accordingly, the Court concludes that the procedural posture of this case does not render
18 Amazon’s motion premature.

19 2. Summary of § 101 Jurisprudence

20 The parties agree that the issue at bar is whether the ‘713 patent is patent-ineligible because
21 it is an abstract idea. As the Federal Circuit has acknowledged, “When it comes to explaining what
22 is to be understood by ‘abstract ideas’ in terms that are something less than abstract, courts have
23 been less successful.” *MySpace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1259 (Fed. Cir. 2012); see
24 also *id.* at 1260 (describing “the murky morass that is § 101 jurisprudence”). Given this uncertainty,
25 a brief summary of the competing case law on this subject is instructive to set the ‘713 patent in this
26 case in context.

27 ///

28 ///

a. Supreme Court

In *Bilski*, the Supreme Court considered a “patent application claim[ing] a procedure for instructing buyers and sellers how to protect against the risk of price fluctuations in a discrete section of the economy.” 130 S. Ct. at 3224.² In other words, the patent described a method for hedging against risk. The Court provided a helpful summary of its most important prior jurisprudence regarding § 101:

In *Benson*, the Court considered whether a patent application for an algorithm to convert binary-coded decimal numerals into pure binary code was a “process” under § 101.³ 409 U.S. [at] 64–67. The Court

² Claim 1 consisted of the following steps:

(a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumers;

(b) identifying market participants for said commodity having a counter-risk position to said consumers; and

(c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions.

Id. at 3223-24.

³ For example, Claim 13 read:

A data processing method for converting binary coded decimal number representations into binary number representations comprising the steps of

(1) testing each binary digit position ‘1,’ beginning with the least significant binary digit position, of the most significant decimal digit representation for a binary ‘0’ or a binary ‘1’;

(2) if a binary ‘0’ is detected, repeating step (1) for the next least significant binary digit position of said most significant decimal digit representation;

(3) if a binary ‘1’ is detected, adding a binary ‘1’ at the (i 1)th and (i 3)th least significant binary digit positions of the next lesser significant decimal digit representation, and repeating step (1) for the next least significant binary digit position of said most significant decimal digit representation;

(4) upon exhausting the binary digit positions of said most

first explained that “[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.” *Id.* at 67 (quoting [*Le Roy v. Tatham*, 55 U.S. 156, 175 (1852)]). The Court then held the application at issue was not a “process,” but an unpatentable abstract idea. “It is conceded that one may not patent an idea. But in practical effect that would be the result if the formula for converting ... numerals to pure binary numerals were patented in this case.” 409 U.S. at 71. A contrary holding “would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself.” *Id.*, at 72.

In *Flook*, the Court considered the next logical step after *Benson*. [*Parker v. Flook*, 437 U.S. 584 (1978).] The applicant there attempted to patent a procedure for monitoring the conditions during the catalytic conversion process in the petrochemical and oil-refining industries.⁴ The application’s only innovation was reliance on a mathematical algorithm. 437 U.S. at 585–586. *Flook* held the invention was not a patentable “process.” The Court conceded the invention at issue, unlike the algorithm in *Benson*, had been limited so that it could still be freely used outside the petrochemical and oil-refining industries. 437 U.S. at 589–590. Nevertheless, *Flook* rejected “[t]he notion that

significant decimal digit representation, repeating steps (1) through (3) for the next lesser significant decimal digit representation as modified by the previous execution of steps (1) through (3); and

(5) repeating steps (1) through (4) until the second least significant decimal digit representation has been so processed.

Benson, 409 U.S. at 74.

⁴ Claim 1 of the patent described the method as follows:

1. A method for updating the value of at least one alarm limit on at least one process variable involved in a process comprising the catalytic chemical conversion of hydrocarbons wherein said alarm limit has a current value of $Bo + K$; wherein Bo is the current alarm base and K is a predetermined alarm offset which comprises:

(1) Determining the present value of said process variable, said present value being defined as PVL;

(2) Determining a new alarm base $B1$, using the following equation: $B1 = Bo(1.0 - F) + PVL(F)$ where F is a predetermined number greater than zero and less than 1.0;

(3) Determining an updated alarm limit which is defined as $B1 + K$; and thereafter

(4) Adjusting said alarm limit to said updated alarm limit value.

Flook, 437 U.S. at 596-97.

post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process.” *Id.* at 590. The Court concluded that the process at issue there was “unpatentable under § 101, not because it contain[ed] a mathematical algorithm as one component, but because once that algorithm [wa]s assumed to be within the prior art, the application, considered as a whole, contain[ed] no patentable invention.” *Id.* at 594. As the Court later explained, *Flook* stands for the proposition that the prohibition against patenting abstract ideas “cannot be circumvented by attempting to limit the use of the formula to a particular technological environment” or adding “insignificant postsolution activity.” [*Diamond v. Diehr*, 450 U.S. 175, 191-92 (1981)].

Finally, in *Diehr*, the Court established a limitation on the principles articulated in *Benson* and *Flook*. The application in *Diehr* claimed a previously unknown method for “molding raw, uncured synthetic rubber into cured precision products,” using a mathematical formula to complete some of its several steps by way of a computer. 450 U.S. at 177.⁵ *Diehr* explained that while an abstract idea, law of nature, or

⁵ For example, Claim 11 described “[a] method of manufacturing precision molded articles from selected synthetic rubber compounds in an openable rubber molding press having at least one heated precision mold, comprising:

(a) heating said mold to a temperature range approximating a pre-determined rubber curing temperature,

(b) installing prepared unmolded synthetic rubber of a known compound in a molding cavity of predetermined geometry as defined by said mold,

(c) closing said press to mold said rubber to occupy said cavity in conformance with the contour of said mold and to cure said rubber by transfer of heat thereto from said mold,

(d) initiating an interval timer upon the closure of said press for monitoring the elapsed time of said closure,

(e) heating said mold during said closure to maintain the temperature thereof within said range approximating said rubber curing temperature,

(f) constantly determining the temperature of said mold at a location closely adjacent said cavity thereof throughout closure of said press,

(g) repetitively calculating at frequent periodic intervals throughout closure of said press the Arrhenius equation for reaction time of said rubber to determine total required cure time v as follows:

$$\ln v = cz + x$$

wherein c is an activation energy constant determined for said rubber being molded and cured in said press, z is the temperature of said mold at the time of each calculation of said Arrhenius equation, and x is a constant which is a function of said predetermined geometry of said

mathematical formula could not be patented, “an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” *Id.* at 187. *Diehr* emphasized the need to consider the invention as a whole, rather than “dissect[ing] the claims into old and new elements and then ... ignor[ing] the presence of the old elements in the analysis.” *Id.* at 188. Finally, the Court concluded that because the claim was not “an attempt to patent a mathematical formula, but rather [was] an industrial process for the molding of rubber products,” it fell within § 101’s patentable subject matter. *Id.* at 192–193.

Bilski, 130 S. Ct. at 3230.

Applying this precedent to the patent for hedging against risk, the *Bilski* Court first found that the fact that the patent failed the machine-or-transformation test was not dispositive. *Id.* at 3226–28. Second, the Court found that the patent could not be ineligible solely because it claimed a “business method.” *Id.* at 3228–29. The Court reasoned that “the Patent Act leaves open the possibility that there are at least some processes that can be fairly described as business methods that are within patentable subject matter under § 101,” even though in practice many business method patents might be invalid under other sections, such as §§ 102, 103, and 112. *Id.* at 3229.

Notwithstanding these caveats, however, the Court nonetheless concluded that the patent was ineligible because its claims “explain the basic concept of hedging, or protecting against risk.” *Id.* at 3231. The Court found that “[t]he concept of hedging, described in claim 1 and reduced to a mathematical formula in claim 4, is an unpatentable abstract idea, just like the algorithms at issue in *Benson* and *Flook*. Allowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea.” *Id.* The Court

mold,

(h) for each repetition of calculation of said Arrhenius equation herein comparing the resultant calculated total required cure time with the monitored elapsed time measured by said interval timer,

(i) opening said press when a said comparison of calculated total required cure time and monitored elapsed time indicates equivalence, and

(j) removing from said mold the resultant precision molded and cured rubber article.

Diehr, 450 U.S. at 181 n.5.

1 additionally determined that the fact that certain claims covered only the energy and commodities
2 markets did not render the invention eligible because under *Flook*, “limiting an abstract idea to one
3 field of use or adding token postsolution components did not make the concept patentable.” *Id.*

4 More recently, in *Mayo*, the Supreme Court considered a method for accurately determining
5 the dosage of certain drugs for autoimmune diseases based on the way different bodies metabolized
6 those drugs. 132 S. Ct. 1289. Although researchers understood the general correlation between
7 certain metabolite levels in a person’s blood and the likely safety and effectiveness of a certain
8 dosage, prior to the patent, “those in the field did not know the precise correlations between
9 metabolite levels and likely harm or ineffectiveness. The patent claims at issue here set forth
10 processes embodying researchers’ findings that identified these correlations with some precision.”
11 *Id.* at 1295.⁶ The Court nonetheless concluded that the patents merely claimed a natural law
12 “describing the relationships between the concentration in the blood of certain thiopurine
13 metabolites and the likelihood that the drug dosage will be ineffective or induce harmful
14 side-effects,” and that “the claimed processes have [not] transformed these unpatentable natural laws
15 into patent-eligible applications of those laws.” *Id.* at 1294. The *Mayo* Court found that “the steps
16 in the claimed processes (apart from the natural laws themselves) involve well-understood, routine,
17 conventional activity previously engaged in by researchers in the field.” *Id.* In effect, the Court
18 concluded, because the patent merely claimed “steps that must be taken in order to apply the laws in
19 question, the effect is simply to tell doctors to apply the law somehow when treating their patients.”

20 _____
21 ⁶ For example, Claim 1 described “[a] method of optimizing therapeutic efficacy for
treatment of an immune-mediated gastrointestinal disorder, comprising:”

22 (a) administering a drug providing 6-thioguanine to a subject having said
23 immune-mediated gastrointestinal disorder; and

24 (b) determining the level of 6-thioguanine in said subject having said
immune-mediated gastrointestinal disorder,

25 wherein the level of 6-thioguanine less than about 230 pmol
per 8×10^8 red blood cells indicates a need to increase the amount of
26 said drug subsequently administered to said subject and

27 wherein the level of 6-thioguanine greater than about 400 pmol
per 8×10^8 red blood cells indicates a need to decrease the amount of
28 said drug subsequently administered to said subject.

Mayo, 132 S. Ct. at 1295 (internal citations and quotation marks omitted).

1 *Id.* at 1299-1300. Accordingly, the claimed method was patent-ineligible because it merely
 2 described a law of nature; it added no “elements or a combination of elements, sometimes referred to
 3 as an ‘inventive concept,’ sufficient to ensure that the patent in practice amounts to significantly
 4 more than a patent upon the natural law itself.” *Id.* at 1294 (citations omitted).

5 b. Federal Circuit

6 Against this backdrop of Supreme Court jurisprudence, the Federal Circuit has considered
 7 numerous § 101 challenges, many of which are instructive to the instant case. For example, in *SiRF*
 8 *Tech., Inc. v. Int’l Trade Comm’n*, the court considered a patent directed to “calculating an absolute
 9 position of a GPS receiver.” 601 F.3d 1319, 1332 (Fed. Cir. 2010). The court found that this
 10 invention satisfied the machine-or-transformation test because “a GPS receiver is a machine and is
 11 integral to each of the claims at issue.” *Id.* The GPS receiver was essential to the patented method,
 12 which described, *inter alia*, “computing absolute position by updating an estimate of position of the
 13 GPS receiver, providing an estimate of the time at which a GPS receiver receives a plurality of
 14 satellite signals, and computing the position of the GPS receiver.” *Id.* (internal quotation marks
 15 omitted). In addition, the court concluded that “the presence of the GPS receiver in the claims
 16 places a meaningful limit on the scope of the claims” because “there is no evidence here that the
 17 calculations here can be performed entirely in the human mind.” *Id.* at 1332-33.

18 Similarly, in *Research Corp.*, the court “upheld the patentability of a claimed method ‘for
 19 rendering a halftone image of a digital image by comparing, pixel by pixel, the digital image against
 20 a blue noise mask.’ [*Research Corp.*, 627 F.3d at 868]. Because the method required the
 21 manipulation of computer data structures (*e.g.*, the pixels of a digital image and a two-dimensional
 22 array known as a mask) and the output of a modified computer data structure (a halftoned digital
 23 image), the method could not, as a practical matter, be performed entirely in a human’s mind.”
 24 *CyberSource*, 654 F.3d at 1376 (describing *Research Corp.*). Instead, the court found that the
 25 “invention presents functional and palpable applications in the field of computer technology,” and
 26 that “inventions with specific applications or improvements to technologies in the marketplace are
 27 not likely to be so abstract that they override the statutory language and framework of the Patent
 28 Act.” *Research Corp.*, 627 F.3d at 868-69.

In contrast, in *CyberSource*, the court considered a patent describing a “method for verifying the validity of a credit card transaction over the Internet.” 654 F.3d at 1370.⁷ The court found that the patent failed the machine-or-transformation test because “the plain language of claim 3 does not require the method to be performed by a particular machine, or even a machine at all.” *Id.* The court rejected the plaintiff’s argument that the patent was tied to the Internet as a “machine” because, even assuming the Internet was a machine, “nothing in claim 3 requires an infringer to use the Internet to obtain th[e] data (as opposed to obtaining the data from a pre-compiled database). The Internet is merely described as the source of the data. We have held that mere [data-gathering] step[s] cannot make an otherwise nonstatutory claim statutory.” *Id.* (citations and internal quotation marks omitted). Beyond the machine-or-transformation test, the court found that the invention was patent-ineligible “because it is drawn to an unpatentable *mental process*—a subcategory of unpatentable abstract ideas.” *Id.* at 1371 (emphasis added). Because “[a]ll of claim 3’s method steps can be performed in the human mind, or by a human using a pen and paper,” the patent merely described an abstract idea. *Id.* at 1372. Furthermore, “even if some physical steps are required to obtain information from the database (*e.g.*, entering a query via a keyboard, clicking a mouse), such data-gathering steps cannot alone confer patentability.” *Id.*

Similarly, in *Dealertrack*, the court considered a patent that described “a computer-aided method and system, respectively, for processing credit applications over electronic networks.” 674

⁷ For example, Claim 3 described “[a] method for verifying the validity of a credit card transaction over the Internet comprising the steps of”:

a) obtaining information about other transactions that have utilized an Internet address that is identified with the [] credit card transaction;

b) constructing a map of credit card numbers based upon the other transactions and;

c) utilizing the map of credit card numbers to determine if the credit card transaction is valid.

CyberSource, 654 F.3d at 1370.

1 F.3d at 1317.⁸ The invention “proposed to automate the process [by which car dealers sought loans
 2 for their customers] through the use of a ‘central processor,’ which receives credit application data
 3 from dealers, processes the data to conform to the individual application forms of different banks,
 4 forwards the completed applications to banks selected by the dealer, receives answers from the
 5 banks, and forwards those answers back to the dealer.” *Id.* The court compared the claim to that
 6 found ineligible in *Bilski* and found that the claim described merely an abstract idea because it
 7 “explain[s] the basic concept of processing information through a clearinghouse, just as claim 1 in
 8 *Bilski II* explain[ed] the basic concept of hedging.” *Id.* at 1333 (citations and internal quotation
 9 marks omitted). The claims were patent-ineligible because they were so general as to “wholly
 10

11 ⁸ For example, Claim 1 described “[a] computer aided method of managing a credit
 12 application, the method comprising the steps of:

13 [A] receiving credit application data from a remote application
 entry and display device;

14 [B] selectively forwarding the credit application data to remote
 15 funding source terminal devices;

16 [C] forwarding funding decision data from at least one of the
 17 remote funding source terminal devices to the remote application entry
 and display device;

18 [D] wherein the selectively forwarding the credit application
 data step further comprises:

19 [D1] sending at least a portion of a credit
 application to more than one of said remote funding
 20 sources substantially at the same time;

21 [D2] sending at least a portion of a credit
 application to more than one of said remote funding
 22 sources sequentially until a finding [sic, funding]
 source returns a positive funding decision;

23 [D3] sending at least a portion of a credit
 application to a first one of said remote funding
 24 sources, and then, after a predetermined time, sending
 to at least one other remote funding source, until one of
 25 the finding [sic, funding] sources returns a positive
 funding decision or until all funding sources have been
 exhausted; or,

26 [D4] sending the credit application from a first
 remote funding source to a second remote finding [sic,
 27 funding] source if the first funding source declines to
 approve the credit application.

28 *Dealertrack*, 674 F.3d at 1331.

preempt the clearinghouse concept.” *Id.* The court further found that the fact that the method was computer-aided did not impose a meaningful limitation because the claim “does not specify how the computer hardware and database are specially programmed to perform the steps claimed in the patent. The claims are silent as to how a computer aids the method, the extent to which a computer aids the method, or the significance of a computer to the performance of the method.” *Id.* (internal citations and quotation marks omitted). Thus, “[t]he undefined phrase ‘computer aided’ is no less abstract than the idea of a clearinghouse itself.” *Id.* Finally, the court concluded that the claim’s limitation to the field of car loans did not render it less abstract, because “[a]lthough directed to a particular use, it nonetheless covers a broad idea.” *Id.* at 1334. Therefore, the invention was patent-ineligible under § 101.

Similar to both *CyberSource* and *Dealertrack*, in *Fort Properties, Inc. v. Am. Master Lease LLC*, the court considered a patent that described “an investment tool designed to enable property owners to buy and sell properties without incurring tax liability.” 671 F.3d 1317, 1318 (Fed. Cir. 2012). The patent described a process to take advantage of an exception to the taxation of real estate sales proceeds under “26 U.S.C. § 1031, which allows an owner of investment property to exchange one property for another of like kind without incurring tax liability if” certain conditions are met. *Id.*⁹ As in *CyberSource* and *Dealertrack*, the court found that the invention was patent-ineligible. First, it failed the machine-or-transformation test because the “claims, like the invention in *Bilski*, disclose an investment tool not requiring the use of a computer.” *Id.* at 1322. In addition, despite

⁹ Claim 1 disclosed “[a] method of creating a real estate investment instrument adapted for performing tax-deferred exchanges comprising:

aggregating real property to form a real estate portfolio;

encumbering the property in the real estate portfolio with a master agreement; and

creating a plurality of deedshares by dividing title in the real estate portfolio into a plurality of tenant-in-common deeds of at least one predetermined denomination, each of the plurality of deedshares subject to a provision in the master agreement for reaggregating the plurality of tenant-in-common deeds after a specified interval.

Fort Properties, 671 F.3d at 1319.

1 the fact that the patents described processes that “were tied to the physical world” of real estate
 2 transactions, this was “insufficient to render the abstract concept of [investment] patentable.” *Id.*
 3 Instead, the court concluded that the patent’s claims merely disclosed the “abstract concept” of “an
 4 investment tool, particularly a real estate investment tool designed to enable tax-free exchanges of
 5 property.” *Id.* at 1322.

6 Subsequently, in *CLS Bank*, the Federal Circuit upheld the patent-eligibility of an invention
 7 that described “a computerized trading platform for exchanging obligations in which a trusted third
 8 party settles obligations between a first and second party so as to eliminate ‘settlement risk,’” which
 9 is “the risk that only one party’s obligation will be paid, leaving the other party without its
 10 principal.” *CLS Bank*, 685 F.3d at 1343.¹⁰ The court rejected the district court’s conclusion that the
 11 claims were “directed to the fundamental concept of employing an intermediary to facilitate
 12 simultaneous exchange of obligations in order to minimize risk.” *Id.* at 1353 (citations and
 13 quotation marks omitted). It found that the claims likely satisfied the machine-or-transformation test
 14

15 ¹⁰ For example, Claim 33, which was typical of the method claims, described “[a] method of
 16 exchanging obligations as between parties, each party holding a credit record and a debit record with
 17 an exchange institution, the credit records and debit records for exchange of predetermined
 obligations, the method comprising the steps of:

18 (a) creating a shadow credit record and a shadow debit record
 19 for each stakeholder party to be held independently by a supervisory
 institution from the exchange institutions;

20 (b) obtaining from each exchange institution a start-of-day
 balance for each shadow credit record and shadow debit record;

21 (c) for every transaction resulting in an exchange obligation,
 22 the supervisory institution adjusting each respective party’s shadow
 23 credit record or shadow debit record, allowing only these [sic]
 24 transactions that do not result in the value of the shadow debit record
 being less than the value of the shadow credit record at any time, each
 said adjustment taking place in chronological order; and

25 (d) at the end-of-day, the supervisory institution instructing one
 26 of the exchange institutions to exchange credits or debits to the credit
 27 record and debit record of the respective parties in accordance with the
 adjustments of the said permitted transactions, the credits and debits
 being irrevocable, time invariant obligations placed on the exchange
 institutions.

28 *CLS Bank*, 685 F.3d at 1343-44.

1 because they required “computer implementation.” *Id.* at 1354-55. More importantly, the court
 2 concluded that the claims were “limited to a very specific application of the concept of using an
 3 intermediary to help consummate exchanges between parties.” *Id.* at 1355. The claims thus

4 cover the practical application of a business concept in a specific way,
 5 which requires computer implemented steps of exchanging obligations
 6 maintained at an exchange institution by *creating electronically*
 7 *maintained shadow credit and shadow debit records*, and particularly
 8 recite that such shadow credit and debit records be held independently
 9 of the exchange institution by a supervisory institution; that
 10 start-of-the-day balances be obtained from the exchange institution;
 11 that adjustments be made to the credit records based on only certain
 12 specified allowed transactions under the “adjusting” limitation; that
 13 such adjustments be made in chronological order; that at the end of the
 14 day, instructions be given to the exchange institution to reflect the
 15 adjustments made on the basis of the permitted transactions; and that
 16 such adjustments affect irrevocable, time invariant obligations placed
 17 on the exchange institution.

12 *Id.* (emphasis added). The court further found that due to the patent’s specific innovation of using
 13 shadow records as described above, the patent left “broad room for other methods of using
 14 intermediaries to help consummate exchanges, whether with the aid of a computer or otherwise, and,
 15 thus, do not appear to preempt much in the way of innovation.” *Id.* at 1355-56. The court
 16 determined that “[w]hile the use of a machine in these limitations is less substantial or limiting than
 17 the industrial uses examined in *Diehr* (curing rubber) or *Alappat* (a rasterizer), the presence of these
 18 limitations prevents us from finding it manifestly evident that the claims are patent ineligible under §
 19 101.” *Id.* at 1356.

20 Distinguishing *CLS Bank*, the Federal Circuit recently found that patents disclosing “systems
 21 and methods for administering and tracking the value of life insurance policies in separate accounts”
 22 fell short of patent-eligibility under § 101. *See Bancorp*, 2012 WL 3037176 at *1.¹¹ As the court

23
 24 ¹¹ For example, Claim 9 of the ‘792 patent described “[a] method for managing a life
 insurance policy on behalf of a policy holder, the method comprising the steps of:

25 [1] generating a life insurance policy including a stable value
 26 protected investment with an initial value based on a value of
 underlying securities;

27 [2] calculating fee units for members of a management group which
 28 manage the life insurance policy;

described, “[t]he value of a separate account policy fluctuates with the market value of the underlying investment assets. That poses a problem from an accounting standpoint, as BOLI [Bank Owned Life Insurance] and COLI [Corporate Owned Life Insurance] plan owners must ordinarily report, on a quarter-to-quarter basis, the value of any policies they own.” *Id.* at 1269. In order to address that volatility,

[s]table value protected investments . . . provid[e] a mechanism for stabilizing the reported value of the policies, wherein a third-party guarantor (the ‘stable value protected writer’) guarantees a particular value (the ‘book value’) of the life insurance policy regardless of its market value. To offset the risk to a potential guarantor for providing that service, the guarantor is paid a fee and restrictions are placed on the policyholder’s right to cash in on the policy. . . . As we previously explained, the asserted patents provide[] a computerized means for tracking the book value and market value of the policies and calculating the credits representing the amount the stable value protected writer must guarantee and pay should the policy be paid out prematurely.

Id. at 1270 (internal citations and quotation marks omitted). The *Bancorp* court affirmed the district court’s holding that the patented claims failed the machine-or-transformation test (“MOTT”) because, even with respect to those claims that required implementation on a computer, “the specified computer components are no more than objects on which the claimed methods operate, and [] the central processor is nothing more than a general purpose computer programmed in an unspecified manner.” *Id.* at *5; *see also id.* at *10-11 (affirming district court’s analysis). The court

[3] calculating surrender value protected investment credits for the life insurance policy;

[4] determining an investment value and a value of the underlying securities for the current day;

[5] calculating a policy value and a policy unit value for the current day;

[6] storing the policy unit value for the current day; and

[7] one of the steps of:

[a] removing the fee units for members of the management group which manage the life insurance policy, and

[b] accumulating fee units on behalf of the management group.

Id. at *2-3.

1 also “noted that although it would be inefficient to do so, the steps for tracking, reconciling and
 2 administering a life insurance policy with a stable value component can be completed manually.”
 3 *Id.* (internal citations and quotation marks omitted); *see also id.* at *10-11 (affirming district court’s
 4 analysis). Without the insufficient computer limitations, the *Bancorp* court concluded that “nothing
 5 remains in the claims but the abstract idea of managing a stable value protected life insurance policy
 6 by performing calculations and manipulating the results,” which “impermissibly preempt[s] the
 7 mathematical concept of managing a stable value protected life insurance policy.” *Id.* at *12
 8 (internal citations and quotation marks omitted). The court distinguished *CLS Bank* because, “the
 9 computer limitations [in *Bancorp*] do not play a ‘significant part’ in the performance of the claimed
 10 invention,” nor are they “directed to a ‘very specific application’ of the inventive concept.” *Id.*

11 Finally, just this August in *Highmark*, the Federal Circuit found that a patented diagnostic
 12 system “in which a user enters data regarding a patient’s symptoms and a computer generates a list
 13 of possible diseases or conditions that might be causing such symptoms” was patent-ineligible under
 14 § 101 “because it is directed to the ‘abstract idea’ that particular symptoms are likely caused by
 15 particular diseases or conditions.” 2012 WL 3181659 at *17. The court concluded that the
 16 computer implementation of this system did not render it patent-eligible because it merely applies
 17 the abstract idea “using conventional computer technology.” *Id.* (citing, *e.g.*, *MySpace*, 672 F.3d at
 18 1267 (Mayer, J., dissenting) (“While running a particular process on a computer undeniably
 19 improves efficiency and accuracy, cloaking an otherwise abstract idea in the guise of a
 20 computer-implemented claim is insufficient to bring it within section 101.”) (footnote omitted)).

21 c. Summary

22 From this collection of case law, this Court discerns several principles that are instructive in
 23 the instant case. First, a patent may not simply restate laws of nature or abstract ideas (*e.g.*,
 24 mathematical formulas, basic principles of risk management, etc.), or apply them in some
 25 rudimentary fashion; instead, the invention must add some “innovative concept” to “transform[] the
 26 process into an inventive application of the formula[, idea, or law of nature].” *Mayo*, 132 S. Ct. at
 27 1292; *see also id.* at 1294 (“[T]o transform an unpatentable law of nature into a patent-eligible
 28 application of such a law, one must do more than simply state the law of nature while adding the

words ‘apply it.’”) (citing *Benson*, 409 U.S. at 71–72). Second, while the MOTT is an important clue for determining patent eligibility, the test does not “trump” the law of nature or abstract idea exclusion. *Id.* at 1303. Third, when analyzing a patent’s claimed elements, the use of a computer is not itself sufficient to satisfy either the MOTT or the eligibility analysis more generally. *Bancorp*, 2012 WL 3037176 at *9 (“[T]he use of a computer in an otherwise patent-ineligible process for no more than its most basic function – making calculations or computations – fails to circumvent the prohibition against patenting abstract ideas and mental processes.”). Fourth, an abstract idea or law of nature even if limited to one field of application (*e.g.*, hedging in energy markets) is still patent-ineligible. *Bilski*, 130 S. Ct. at 3231. And finally, as an extension of the field-of-use principle described above, a patent need not preempt an entire field in order to be ineligible; rather, the question is whether “upholding the patents would risk *disproportionately* tying up the use of the underlying [abstract ideas or] natural laws, inhibiting their use in the making of further discoveries.” *Mayo*, 132 S. Ct. at 1294 (emphasis added); *Highmark*, 2012 WL 3181659 at *17.

3. Patent Eligibility in This Case

With these principles and the above case law in mind, the Court holds that Plaintiff’s patent describes an abstract idea of price optimization and is therefore patent-ineligible. With the Federal Circuit’s admonitions in mind that patent-ineligibility must be obvious under § 101’s coarse eligibility filter, the Court concludes in the instant case that the ‘713 patent’s abstractness is “manifestly apparent.” *CyberFone Sys., LLC v. Cellco P’ship*, --- F. Supp. 2d ----, CIV. 11-827-SLR, 2012 WL 3528115, at *8 (D. Del. Aug. 16, 2012) (patent claims “represent nothing more than a disembodied concept of data sorting and storage and, therefore, the court finds the abstract nature of this patented process to be manifestly apparent”).

a. Machine-or-Transformation Test (“MOTT”)

As discussed above, the machine-or-transformation test (“MOTT”) is an important, though not dispositive, “investigative tool” through which the Court can examine eligibility under § 101. *Bilski*, 130 S. Ct. at 3227. Plaintiff argues only that its invention satisfies the “machine” prong of the MOTT. Therefore, the Court considers only that prong.

“[T]o impart patent-eligibility to an otherwise unpatentable process under the theory that the process is linked to a machine, the use of the machine ‘must impose meaningful limits on the claim’s scope.’ In other words, the machine ‘must play a significant part in permitting the claimed method to be performed.’” *CyberSource*, 654 F.3d at 1375 (quoting *In re Bilski* (“*Bilski I*”), 545 F.3d 943, 961 (Fed. Cir. 2008); *SiRF Tech.*, 601 F.3d at 1333); *Bancorp*, 2012 WL 3037176 at *10 (“To salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.”). The Federal Circuit has “defined a ‘machine’ as ‘a concrete thing, consisting of parts, or of certain devices and combination of devices. This includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result.’” *SiRF Tech.*, 601 F.3d at 1332.

i. Specific Machine

Plaintiff argues in conclusory fashion that Claim 1 contains “many machine elements,” including “a network,” “devices,” “a machine-readable medium,” and “a computerized system.” Opp. at 21. However, merely identifying general “machine elements” does not satisfy the MOTT; were that so, virtually any use of devices beyond the human body for a claimed method would satisfy the test. Instead, the claim must, at a minimum, identify a “*specific machine*.” *CyberFone*, 2012 WL 3528115 at *5 & n.5 (rejecting plaintiff’s argument “that the sending of exploded data transactions over a channel ... also requires a machine” because “plaintiff only summarily makes this argument and does not indicate *what* type of machine is required”) (emphasis in original) (quoting *Bilski I*, 545 F.3d at 961). Merely listing “a network” or “devices” is akin to the “channel” rejected in *CyberFone*, and is insufficient to “impose meaningful limits on the claim’s scope,” *id.* at *5 n.5 (quoting *Bilski I*, 545 F.3d at 961), or to separate the machine-related elements from mere “insignificant extra-solution activity.” *Bilski I*, 545 F.3d at 962 (citing *Flook*, 437 U.S. at 590).¹²

¹² Moreover, it is not at all clear that a “network” can constitute a “machine.” See *CyberSource Corp. v. Retail Decisions, Inc.*, 620 F. Supp. 2d 1068, 1077 (N.D. Cal. 2009) (concluding that the internet is not a machine and that “an unpatentable mental process for collecting data and weighing values does not become patentable by tossing in references to internet commerce”), *aff’d*, 654 F.3d 1366 (Fed. Cir. 2011) (not expressly deciding whether the internet can be considered a machine).

1 Even crediting each item listed above as a separate “machine” within the meaning of the MOTT,
 2 “[s]toring, retrieving, and providing data . . . are inconsequential data gathering and insignificant
 3 post solution activity.” *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada*, 771 F. Supp. 2d
 4 1054, 1065 (E.D. Mo. 2011), *aff’d*, 687 F.3d 1266 (Fed. Cir. 2012); *see CyberSource*, 654 F.3d at
 5 1370 (same). These inconsequential functions are all that the devices and networks identified by
 6 Plaintiff provide.

7 ii. Meaningful Limits

8 Beyond the vague “networks” or “devices” identified in Claim 1, the claim’s “machine-
 9 readable medium” and “computerized system” each refer to computer implementation. However,
 10 the fact that claims may require implementation on a computer does not demonstrate that the claim
 11 satisfies the MOTT. *See Bancorp*, 2012 WL 3037176 at *6-7, *9-10 (concluding that some claims
 12 required at least one computer, but nonetheless finding that they failed the MOTT). Rather, the
 13 question focuses on the nature of the computer implementation at issue. Thus, when the computer
 14 “impose[s] a meaningful limit on the scope of a claim, and play[s] a significant part in permitting the
 15 claimed method to be performed, *rather than function[ing] solely as an obvious mechanism for*
 16 *permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for*
 17 *performing calculations, that machine limitation renders the method patent eligible.” CLS Bank*, 685
 18 F.3d at 1351 (internal citations and quotation marks omitted) (emphasis in original).

19 In the instant case, the computer implementation directed by the ‘713 patent does not satisfy
 20 the MOTT, nor does it rescue the claims from ineligibility more broadly, for two reasons. First,
 21 Claim 1 describes the step of “gathering, within a machine-readable medium, statistics generated
 22 during” the price testing regarding consumer response to the price offers. However, as noted above,
 23 ““mere data-gathering steps cannot make an otherwise nonstatutory claim statutory.”” *CyberSource*,
 24 654 F.3d at 1370 (internal brackets omitted) (quoting *In re Grams*, 888 F.2d 835, 840 (Fed. Cir.
 25 1989); *In re Meyer*, 688 F.2d 789, 794 (CCPA 1982)). Put another way, steps that “merely
 26 determine values for the variables used in the mathematical formulae used in making the
 27 calculations . . . do not suffice to render the claimed methods, considered as a whole, statutory
 28 subject matter.” *In re Grams*, 888 F.2d at 840 (quoting *In re Richman*, 563 F.2d 1026, 1030 (CCPA

1 1977)); *see also* *CyberFone*, 2012 WL 3528115 at *7 (“[T]he telephone is not an integral part of the
2 claim; it simply functions as a means for collecting data whereas the real focus of the claim is the
3 sorting and storing. . . . In other words, the use of a telephone to capture data does not make the
4 abstract concepts of sorting and storing data somehow patent-eligible.”) (internal citation omitted).

5 Nor does the claimed step “specify how the [medium is] specially programmed to perform
6 the steps claimed in the patent. The claims are silent as to how a computer aids the method, the
7 extent to which a computer aids the method, or the significance of a computer to the performance of
8 the method.” *Dealertrack*, 674 F.3d at 1333 (internal citations and quotation marks omitted). Thus,
9 merely adding a “machine-readable medium” as the location for storing the gathered data rather
10 than, *e.g.*, a pen and paper, does not impose any meaningful limitation on the claimed method. *See*
11 *Highmark*, 2012 WL 3181659 at *17 (finding use of a general-purpose computer to perform a
12 method did not render invention patent-eligible based in part on the fact that “[a]ny healthcare
13 provider or patient who has ever consulted a medical treatise or home medical reference book to
14 determine what disease or condition might be causing particular symptoms has practiced a
15 non-computerized version of the claimed method”); *CyberSource*, 654 F.3d at 1735 (“[T]he basic
16 character of a process claim drawn to an abstract idea is not changed by claiming only its
17 performance by computers, or by claiming the process embodied in program instructions on a
18 computer readable medium.”). Accordingly, use of the machine-readable medium in the claimed
19 method does not satisfy the MOTT.

20 Second, Claim 1 describes the step of “using a computerized system to read said statistics
21 from said machine-readable medium and to automatically determine, based on said statistics, an
22 estimated outcome of using each of the plurality of prices for the product.” In other words, the
23 claimed method employs a computer to calculate, based on the data gathered, a demand curve for the
24 product. Further, certain dependent claims offer varying goal functions for the computer to use to
25 calculate the relevant “estimated outcome[s],” including goals such as maximizing revenue, profit,
26 customer lifetime value, customer acquisition, and customer retention. *See* Claims 11-15, 37-41.

27 However, as with the “machine-readable medium” described above, here the claimed step
28 does not require any particular form of a computer; rather, it requires merely “a general purpose

1 computer programmed in an unspecified manner.” *Bancorp*, 2012 WL 3037176 at *5; *see*
 2 *Dealertrack*, 674 F.3d at 1332 (same). “[T]he use of a computer in an otherwise patent-ineligible
 3 process for no more than its most basic function – making calculations or computations – fails to
 4 circumvent the prohibition against patenting abstract ideas and mental processes.” *Bancorp*, 2012
 5 WL 3037176 at *9. Nor do the claims “refer to a specific machine by reciting structural limitations
 6 that narrow the computer implemented method to something more specific than a general purpose
 7 computer [or] recite any specific operations performed that would structurally define the computer.”
 8 *Bancorp*, 771 F. Supp. 2d at 1064 (internal citations and quotation marks omitted). Thus, “the
 9 specified computer components are no more than objects on which the claimed methods operate,”
 10 and fail to satisfy the MOTT. *Bancorp*, 2012 WL 3037176, at *5 (citing *Bancorp*, 771 F. Supp. 2d
 11 at 1064).

12 A computer-aided limitation is insufficient to satisfy the MOTT where, as here, the
 13 calculations at issue could be performed in the human mind. *See CyberSource*, 654 F.3d at 1372
 14 (rejecting claimed method as abstract where “steps can be performed in the human mind, or by a
 15 human using a pen and paper”); *Bancorp*, 2012 WL 3037176 at *5 (Fed. Cir. 2012) (finding
 16 computer implementation failed to meet MOTT because, “although it would be inefficient to do so,
 17 the steps for tracking, reconciling and administering a life insurance policy with a stable value
 18 component can be completed manually”) (quoting *Bancorp*, 771 F. Supp. 2d at 1065). Put another
 19 way, the computer limitation is not “integral” to the claimed method because it does not “facilitat[e]
 20 the process in a way that a person making calculations or computations could not.” *Id.* at *10 (citing
 21 *SiRF Tech.*, 601 F.3d at 1333); *see Bancorp*, 2012 WL 3037176 at *11 (“It is the management of the
 22 life insurance policy that is ‘integral to each of [Bancorp’s] claims at issue,’ not the computer
 23 machinery that may be used to accomplish it.”) (quoting *SiRF Tech.*, 601 F.3d at 1332).

24 Here, the only element of the claimed calculation that might take it outside the realm of the
 25 human mind is the claim term “automatically,” but to do a calculation “automatically” simply refers
 26 to the computer’s inherent value in performing calculations *more quickly*, a characteristic that does
 27 not render the computer “integral” to the claimed method. To the contrary, “[w]hile running a
 28 particular process on a computer undeniably improves efficiency and accuracy, cloaking an

otherwise abstract idea in the guise of a computer-implemented claim is insufficient to bring it within section 101.” *Highmark*, 2012 WL 3181659 at *17 (quoting, 672 F.3d at 1267 (Mayer, J., dissenting)); *see also Bancorp*, 2012 WL 3037176 at *11 (“Here, in contrast [to *Research Corp.*], the computer merely permits one to manage a stable value protected life insurance policy more efficiently than one could mentally. *Using a computer to accelerate an ineligible mental process does not make that process patent-eligible.*”) (emphasis added).

Accordingly, the ‘713 patent’s claims are insufficiently limited by a computer (or any other machine) to satisfy the machine-or-transformation test.

b. Abstract Idea

As noted above, the MOTT, while an “important and useful clue,” *Bilski*, 130 S. Ct. at 3226, is not a dispositive test for patent eligibility. In addition to failing the MOTT, the ‘713 patent describes a fundamentally abstract concept.

As the Supreme Court has explained, “to transform an unpatentable [abstract idea] into a patent-eligible application of such [an idea], one must do more than simply state the [idea] while adding the words ‘apply it.’” *Mayo*, 132 S. Ct. at 1294. Rather, an invention must apply the concept “to a new and useful end.” *Id.* (citations omitted). An invention employing an abstract idea must “also contain other elements or a combination of elements, sometimes referred to as an ‘*inventive concept*,’ sufficient to ensure that the patent in practice amounts to *significantly more* than a patent upon the [abstract idea] itself.” *Id.* (citations omitted) (emphases added). In addition, “the steps in the claimed processes (apart from the [abstract ideas] themselves) [should do more than simply] involve well-understood, routine, conventional activity previously engaged in by [people] in the field,” and should not preempt the use of the abstract idea in future discoveries. *Id.* (citations omitted).

After rejecting the computer limitations in the ‘713 patent as described above, “the question under § 101 reduces to an analysis of what additional features remain in the claims.” *Bancorp*, 2012 WL 3037176 at *11 (citing *Mayo*, 132 S. Ct. at 1297 (questioning, after setting aside the claimed law of nature, “[w]hat else is there in the claims before us?”). Having considered the claims and

1 their elements “as a whole,” *Diehr*, 450 U.S. at 188, the answer in this case is, not much, and not
2 enough to render the claims patent-eligible.

3 The ‘713 patent’s claimed steps are not meaningfully distinguishable from those found
4 ineligible under Supreme Court and Federal Circuit authority. The ‘713 patent describes steps such
5 as “testing” prices by “sending . . . messages” to “potential customers,” “gathering . . . statistics
6 generated during said testing about how the potential customers responded to the offers,” “read[ing]
7 said statistics” and “determin[ing], based on said statistics, an estimated outcome” at each price,
8 “selecting a price at which to sell a product based on the estimated outcome,” and “sending” a new
9 set of messages to “potential customers” with the newly selected price. In simple English, the ‘713
10 patent in essence teaches nothing more than the calculation of a demand curve based on consumer
11 response to different price points.¹³

12 As the Federal Circuit found in *Bancorp*, “[w]hen the insignificant computer-based
13 limitations are set aside from those claims that contain such limitations,” “nothing remains in the
14 claims but the abstract idea of [measuring a demand curve and optimizing price] by performing
15 calculations and manipulating the results.” *Bancorp*, 2012 WL 3037176 at *11, *12. Instead, these
16 steps describe what any business owner or economist does in calculating a demand curve for a given
17 product. *See id.* at *11 (rejecting claims as abstract where they “require determining values – for
18 example, “an initial value based on a value of underlying securities,” “fee units,” “surrender value
19 protected investment credits,” “an investment value and a value of the underlying securities for the
20 current day,” and “a policy value and a policy unit value for the current day” – and then “storing,”
21 “removing,” and/or “accumulating” some of those values”). As Amazon notes in its brief, absent the
22 computer limitations, which the Court has already rejected as insignificant, “a merchant in a bazaar
23 could have performed OIP’s invention centuries ago—and no doubt did.” Reply at 9 (quotation
24

25
26 ¹³ The Court arrives at this conclusion cognizant of and adhering to the Federal Circuit’s
27 admonition that “[i]t is fundamentally improper to paraphrase a claim in overly simplistic
28 generalities in assessing whether the claim falls under the limited ‘abstract ideas’ exception to patent
eligibility under 35 U.S.C. § 101. Patent eligibility must be evaluated based on what the claims
recite, not merely on the ideas upon which they are premised.” *CLS Bank*, 685 F.3d at 1351-52; *see*
also CyberFone, 2012 WL 3528115 at *5 (applying standard).

marks omitted).¹⁴ Thus, there is nothing that “amounts to *significantly more* than a patent upon the [abstract idea] itself.” *Mayo*, 132 S. Ct. at 1294 (emphasis added).

The decisions of the Supreme Court and Federal Circuit finding various patents invalid under § 101 are on point. The ‘713 patent is as abstract as *Bilski*’s patent – which claimed a method for hedging and described initiating a series of transactions, identifying a counter-risk position, and initiating a second series of transactions to balance risk, 130 S. Ct. at 3223-24 – and the patent in *CyberSource* – which covered steps of gathering information about credit card transactions, making a list of those numbers and transactions, and determining from the list whether the transaction was valid, 654 F.3d at 1370. As the ‘713 patent merely claims a method for charting a demand curve for a product and deriving an optimum price based on that demand, it, like the patents in *Bilski* and *CyberSource*, contains no “inventive concept” extending beyond the abstract idea of an elastic demand curve. *Mayo*, 132 S. Ct. at 1294 (quoting *Flook*, 437 U.S. at 594); *see also Cyberfone*, 2012 WL 3528115 at *8 (rejecting a patent as abstract when, “broken down into its component parts, [it] recites steps by which data is obtained, sorted, and stored”). Indeed, as courts have also noted in the context of the transformation prong of the MOTT, the collection and use of data does not render an invention patent-eligible under § 101. *See CyberFone*, 2012 WL 3528115 at *5 (summarizing plaintiff’s arguments “that: 1) the data is transformed by being converted into data subsets; and 2) a storage device is changed when it incorporates new data”); *id.* at *6 (rejecting both arguments as “unpersuasive”) (citing *CyberSource*, 654 F.3d at 1367; *Bancorp*, 2012 WL 3037176, at *5).

¹⁴ Nor do the dependent claims add any meaningful limitation to the independent claims so as to render certain dependent claims patent-eligible. Although Plaintiff argues generally that the dependent claims “impose additional limitations” on the independent claims, it fails to explain how any particular limitation rescues the claim from ineligibility. The dependent claims merely offer examples of potential inputs for the abstract calculations (*e.g.*, for products that are services (claim 47), or for products that are associated with the same stock-keeping unit or SKU (claim 48)), or examples of goals toward which the abstract process can be oriented, such as maximizing revenue, profit, customer lifetime value, customer acquisition, or customer retention (claims 11-15, 37-41). Nothing suggests the ‘713 patent teaches anything not already taught by the basic principles of economics. Indeed, the claims themselves do not even specify any particular method of, *e.g.*, profit maximization. While there are specifications in the ‘713 patent containing exemplary formulas for calculating certain outcomes, the Court may not “import[] limitations from the specification into the claim.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005); *see also id.* at 1320. Moreover, use of a formula or algorithm in the claims would not render the invention patent-eligible under § 101. *See Benson*, 409 U.S. at 71-72.

Although the claims do include certain concrete steps, such as “sending . . . messages” to “potential consumers” and receiving or “gathering” information from them (which form the basis of the calculations), “[t]he presence of a physical step in the claim to derive data for the algorithm will not render the claim statutory.” *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989); *see also Mayo*, 132 S. Ct. at 1297 (“These additional steps [of, *e.g.*, administering a drug to a patient], are not themselves [abstract ideas] but neither are they sufficient to transform the nature of the claim.”); *Fort Properties*, 671 F.3d at 1323 (“When viewing the claimed invention as a whole, the physical activities involving the deeds, contracts, and real property are insufficient to render these claims patentable.”). Nor will the post-solution activity of sending a second message to potential customers with the newly-calculated price rescue the claims in the instant case. *Mayo*, 132 S. Ct. at 1299 (“‘[P]ost-solution activity’ that is purely ‘conventional or obvious,’ . . . ‘can[not] transform an unpatentable principle into a patentable process.’”) (quoting *Flook*, 437 U.S. at 589); *see also, e.g., In re Schrader*, 22 F.3d 290, 291-92 (Fed. Cir. 1994) (invention “directed to a method for competitively bidding on a plurality of related items” – *i.e.*, an auction – using steps such as “identifying a plurality of related items in a record, offering said plurality of items to a plurality of potential bidders, [and] receiving bids from said bidders,” and using one specific goal function, “complet[ing] a sale of all of the items being offered at the highest offered total price,” lacked statutory subject matter under § 101).

As *Mayo* explained in the context of a patent for calculating the proper dosage of a drug, “Anyone who wants to make use of these laws must first administer a thiopurine drug and measure the resulting metabolite concentrations, and so the combination amounts to nothing significantly more than an instruction to doctors to apply the applicable laws when treating their patients.” *Id.* at 1298. The same can be said of anyone who seeks to use the laws of supply and demand to calculate a demand curve and an optimum price; she must first gather data from which to make a calculation, and after she has made it, she must tell customers about the new price. In the final analysis, the patent simply instructs businesses to apply the concepts of supply and demand. In short, the ‘713 patent contains no “inventive concept” necessary to patentability. *Id.* at 1294. *See also Dealertrack*, 674 F.3d at 1317, 1333 (finding invention ineligible despite claimed steps of “receiv[ing]” and

“forward[ing]” information to and from dealers – akin to sending messages to potential customers – because such steps merely described the “basic concept of processing information through a clearinghouse”); *Classen*, 659 F.3d at 1067, 1068 (rejecting third of three patents, which merely “claims the idea of comparing known immunization results that are, according to the patent, found in the scientific literature, but does not require *using* this information for immunization purposes,” as too abstract to be eligible because there was no “movement from principle to application.”) (emphasis added).

Plaintiff’s reliance on *CLS Bank* in arguing for patent eligibility is unavailing. For the reasons discussed above, the ‘713 patent is distinct from that in *CLS Bank*. *CLS Bank*, which the Federal Circuit found that the invention which claimed a particular trading platform to minimize risk, specified the use of “shadow records,” which supplied a specific and inventive application of the general concept of “using an intermediary to help consummate exchanges between parties.” *CLS Bank*, 685 F.3d at 1355. Specifically, the court found:

The asserted claims appear to cover the practical application of a business concept in a specific way, which requires computer implemented steps of exchanging obligations maintained at an exchange institution by creating electronically maintained shadow credit and shadow debit records, and particularly recite that such shadow credit and debit records be held independently of the exchange institution by a supervisory institution; that start-of-the-day balances be obtained from the exchange institution; that adjustments be made to the credit records based on only certain specified allowed transactions under the “adjusting” limitation; that such adjustments be made in chronological order; that at the end of the day, instructions be given to the exchange institution to reflect the adjustments made on the basis of the permitted transactions; and that such adjustments affect irrevocable, time invariant obligations placed on the exchange institution.

Id. The use of shadow records to implement the trading platform was an inventive concept and was material to the patent’s eligibility. The specific, concrete steps and innovative concepts integral to implementation of the invention in *CLS Bank* are absent from the ‘713 patent.

Similarly, the ‘713 patent in this case is distinguishable from the two patents upheld in *Classen* because it does not cover any concrete steps of, *e.g.*, actually selling the products at issue or coordinating the sale thereof. *Cf. Classen*, 659 F.3d at 1060 (upholding two patents that included a concrete step of administering the vaccine, whereby information on immunization schedules and the

1 occurrence of chronic disease is “screened” and “compared,” the lower risk schedule is “identified,”
 2 and the vaccine is “administered” on that schedule). Instead, the ‘713 patent explicitly disclaims
 3 any application to the actual sale of goods at the selected price. *See* Docket No. 1, ‘713 patent col. 5
 4 ll. 1-3 (“Actual fulfillment of a purchase of a product, whether tangible or digital, is a separate
 5 process not directly considered here.”). Therefore, the patent in this case is more like those in *Mayo*
 6 or *Dealertrack*, in which the concrete steps merely described the context in which the calculation or
 7 measurement takes place. Here, the focus of the claims themselves are on the gathering of data and
 8 the calculation of an optimum price, not on any specific, concrete, and inventive application thereof.
 9 *See Mayo*, 132 S. Ct. at 1291 (“The ‘administering’ step simply identifies a group of people who
 10 will be interested in the correlations, namely, doctors who used thiopurine drugs to treat patients
 11 suffering from autoimmune disorders.”); *see also Flook*, 437 U.S. at 594-95 (rejecting invention that
 12 “simply provides a new and presumably better method for calculating alarm limit values”).

13 Finally, Plaintiff argues that the ‘713 patent is patent-eligible because the price optimization
 14 process claimed by the ‘713 patent does not preempt the entire field of price optimization; it leaves
 15 room for other iterations of the principle, such as using vendor databases, cost databases, surveys of
 16 competitive prices, online auctions, and other methods. Plaintiff therefore claims that unlike in
 17 *Bilski*, its patent “does not foreclose price-selecting ‘approach[es] in all fields.’” Opp. at 13 (citing
 18 *Bilski*, 130 S. Ct. at 3231). Plaintiff overreads *Bilski*. Although *Bilski* rejected certain claims
 19 because they “would pre-empt use of this approach [to hedging] in all fields,” in the very next
 20 paragraph it rejected more limited claims that only described hedging in energy and commodity
 21 markets, finding, “*Flook* established that limiting an abstract idea to one field of use or adding token
 22 post-solution components did not make the concept patentable.” *Bilski*, 130 S. Ct. at 3231; *see also*
 23 *Bancorp*, 2012 WL 3037176 at *12 (rejecting Bancorp’s argument “that its claims are not abstract
 24 because they are limited to use in the life insurance market” based on *Flook* and *Bilski*).

25 Thus, as *Flook*, *Bilski*, and *Mayo* teach, a patent need not *wholly* preempt the abstract idea of
 26 price optimization in all of its forms in order to be ineligible under § 101; rather the degree of
 27 preemption relevant to the § 101 analysis is a relative concept. *See also Mayo*, 132 S. Ct. at 1294
 28 (“[U]pholding the patents would risk *disproportionately* tying up the use of the underlying [abstract

ideas], inhibiting their use in the making of further discoveries.”).¹⁵ The central question remains whether the patentee seeks “broad monopoly rights over a basic concept, fundamental principle, or natural law without a concomitant contribution to the existing body of scientific and technological knowledge.” *Highmark, Inc., supra*, 2012 WL 3181659 at *7. The Court concludes the ‘713 patent does.

IV. CONCLUSION

In sum, the ‘713 patent fails the machine prong of the MOTT – the only prong argued by Plaintiff – because its only machine elements merely incorporate a computer that is “employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.” *Bancorp*, 2012 WL 3037176 at *10. More fundamentally, examining the ‘713 patent’s claims as a whole and hewing closely to the Supreme Court’s and Federal Circuit’s precedents in this area, *see Bilski*, 130 S. Ct. at 3231, it is clear that the ‘713 patent falls within the statutory exception for abstract ideas.

Accordingly, the Court concludes that the ‘713 patent is ineligible under § 101.

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¹⁵ Indeed, a rule for patent eligibility based on whether the entire field was preempted would largely beg the question. Is the “field” in question: (1) all price setting; (2) price optimization; (3) price optimization using offers and actual consumer purchases; (4) price optimization in e-commerce, or some other claimed field of use? The question-begging nature of the analysis underscores the wisdom of *Bilski* and *Flook*’s rejection of such an attempt to claim a field-of-use limitation as the determinating factor under the § 101 analysis.

1 For the foregoing reasons, the Court **GRANTS** Defendant's motion to dismiss Plaintiff's
2 complaint with prejudice on the grounds that the '713 patent is ineligible under § 101.¹⁶ The Clerk
3 shall enter judgment and close the file.

4 This order disposes of Docket No. 33.

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6 IT IS SO ORDERED.

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8 Dated: September 11, 2012

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10 
EDWARD M. CHEN
United States District Judge

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¹⁶ Because the Court grants the motion to dismiss on the basis of § 101, it need not consider
28 the parties' remaining arguments, including Defendant's arguments with respect to willful
infringement.